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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/680,538	10/07/2003		Bradley Jon VanderTuin	27644.16	5013	
32300	7590	09/21/2005		EXAMINER		
BRIGGS A	AND MO	RGAN P.A.	SIPOS, JOHN			
2200 IDS C	ENTER					
80 SOUTH 8TH ST				ART UNIT	PAPER NUMBER	
MINNEAPOLIS, MN 55402				3721		

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s) VANDERTUIN ET AL.	
	10/680,538		
Office Action Summary	Examiner	Art Unit	
	John Sipos	3721	
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with the	correspondence address	
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be till will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133).	
Status		•	
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1) Responsive to communication(s) filed on			
<i>;</i>	s action is non-final.		
3) Since this application is in condition for allowa			
closed in accordance with the practice under	<i>Ex рапе Quayle</i> , 1935 С.D. 11, 4	53 O.G. 213.	
Disposition of Claims			
4)⊠ Claim(s) <u>1-22 and 53-55</u> is/are pending in the	application.		
4a) Of the above claim(s) is/are withdra	wn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-22 and 53-55</u> is/are rejected.			
7) Claim(s) is/are objected to.		•	
8) Claim(s) are subject to restriction and/o	or election requirement.		
Application Papers			
9) ☐ The specification is objected to by the Examine	or		
10) The drawing(s) filed on is/are: a) acc		Fxaminer	
Applicant may not request that any objection to the			
Replacement drawing sheet(s) including the correct			
11) The oath or declaration is objected to by the E			
,—			
Priority under 35 U.S.C. § 119	•		
12) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C. § 119(a	)-(d) or (f).	
a) All b) Some * c) None of:	to have been received		
1. Certified copies of the priority documen		ion No	
2. Certified copies of the priority documen			
<ol> <li>Copies of the certified copies of the price</li> <li>application from the International Burea</li> </ol>	•	ed in this National Stage	
* See the attached detailed Office action for a list		ed.	
See the attached detailed Office action for a list	tor the certified copies not receive		
•			
Attachment(s)		,	
1) M Notice of References Cited (PTO-892) 2) Motice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Summary Paper No(s)/Mail D		
2)	) 5) Notice of Informal F	Patent Application (PTO-152)	
Paper No(s)/Mail Date \$\[ \slime \left\ \slime \left\ \slime \slime \left\ \slime \slime \slime \slime \left\ \slime \sli	6) Other:		

Application/Control Number: 10/680,538

Art Unit: 3721

## REJECTIONS OF CLAIMS BASED ON PRIOR ART

The following is a quotation of 35 U.S.C. '103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 10-14,17 and 20-22 are rejected under 35 U.S.C. ' 103(a) as being unpatentable over the patent to Grenwell (3,545,165) in view of Limousin (6,772,575). The patent to Greenwell shows a packaging machine comprising a conveyor 702 having a plurality of apertures between rollers 704, the conveyor comprising two chains 705,706, a source of air with a fan 718, a heated air plenum below the conveyor 714 with apertures 719, a return air plenum 711, a shroud enclosing the conveyor 713 that is spaced at a displacement from the conveyor (see the spacing between walls 728,729 and the conveyor in Figure 25), side ducts 722,723 and air flow controls 719 and 720. The Patent to Greenwell lacks the use of a variable speed fan. The patent to Limousin shows a packaging machine comprising a heating tunnel 42 over a conveyor 30 and fans 60 that are operated by variable electrical motors to vary the airflow within the tunnel. It would have been obvious to one skilled in the art substitute the variable fan of Limousin for the fan of Grenwell to make the heating tunnel more versatile and allow the variations of the airflow within the tunnel.

Application/Control Number: 10/680,538

Art Unit: 3721

The use tapered tunnels to increase air flow (claim 2), conveyor cooling fans (claim 4), supplemental heaters (claims 6), adjustable shrouds to accommodate different size articles (claims 10-13) and nozzles (claim 17) are well known and the Examiner takes official notice that the use of these features are common knowledge in the packaging art. In the above cases the modification of the Greenwell operation would have been obvious to one skilled in the art for the known benefits of each modification.

Regarding claim 14, the size of the apertures depends upon the desired airflow and would have been obvious to one skilled in the art to experiment to reach the optimum desired flow.

Claims 7-9,15,16,18 and 19 are rejected under 35 U.S.C. '103(a) as being unpatentable over the patent to Greenwell (3,545,165) as applied to the claims above, and further in view of the patent to Neagle (5,765,336). The patent to Greenwell lacks the double lanes of articles. The patent to Neagle shows a packaging machine that can be converted from a single lane to a double lane operation by using double conveyors 150a-150d and a double width wrapper that is separated by knife 212 and thereby increases the productivity of the machine. Various mechanisms are adjustable to conform to either operation and central tools can be inserted to accommodate the two lanes (see column 3, lines 28-39). The articles are passed through a heating tunnel where the wrapper is shrunk onto the articles. It would have been obvious to one skilled in the art to provide the device of Greenwell with a duplicate conveyor and central tools

Application/Control Number: 10/680,538

Art Unit: 3721

to accommodate two lanes of articles as shown by Neagle to increase the machine output.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. '102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 53-54 are rejected under 35 U.S.C. '102(b) as being anticipated by the patent to Nava (6,648,634). The patent to Nava shows a packaging machine comprising a conveyor 5 having a plurality of apertures, a source of air with a fan 17, a heated air plenum below the conveyor with apertures 10, a return air plenum 32, a shroud enclosing the conveyor 3 that is spaced at a displacement from the conveyor, and air flow controls 11 that comprise lanes with apertures extending parallel to the conveying directions.

Claims 55 is rejected under 35 U.S.C. '103(a) as being unpatentable over the patent to Nava (6,648,634). The use baffles to direct airflow is well known and the Examiner takes official notice that the use of baffles is common knowledge in the

Art Unit: 3721

packaging art. It would have been obvious to one skilled in the art to provide the Greenwell tunnel with baffles to more positively direct the airflow.

## ALLOWABLE SUBJECT MATTER

The claims would be more favorably considered if claim 53 was modified by adding in the last paragraph the phrase "wherein each of the air lanes are open and extend substantially parallel to the first direction for a major length of said air plenum." Similar addition should be added to claim 1.

Any inquiry concerning this communication should be directed to Examiner John Sipos at telephone number (703) 308-1882. The examiner can normally be reached from 6:30 AM to 4:00 PM Monday through Thursday.

The FAX number for Group 3700 of the Patent and Trademark Office is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Rinaldi Rada, can be reached at (703) 308-2187.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-1148.

John Sipos

Rrimary Examiner